

Listing of the Claims

1-2. (canceled)

3. (currently amended) The method of claim 35 2, wherein said information concerning the communication capabilities of the first ~~the attribute of the data source~~ device comprises one of a type of voice operated recorder (vocoder), a ~~source~~ device revision indicator, and a ~~source~~ device identifier.

4-6. (canceled)

7. (currently amended) The method of claim 35 1, wherein at the first device, further comprising compressing the data stream according to a source compression algorithm, wherein ~~the attribute upon which the watermark is generated~~ said information identifies the source compression algorithm.

8. (currently amended) The method of claim 35 1, wherein at the first device, said generating further comprises ~~comprising~~:
compressing the data stream to generate a compressed data stream;
detecting a capability of the ~~data source~~ first device;
generating a signature based on the detected capability of the source device; and
applying the signature as ~~the~~ a watermark to the compressed data stream to generate the data transmission message.

9. (currently amended) The method of claim 8, wherein detecting comprises detecting ~~the detected~~ a capability of the ~~data source~~ first device ~~comprises comprising~~ at least one of a type of voice operated recorder (vocoder), ~~source~~ device revision indicator, and a ~~source~~ device identifier.

10. (original) The method of claim 8, wherein the data stream includes multimedia data encoded in a plurality of fields including non-critical fields and critical fields, and wherein said applying the signature comprises masking the non-critical fields of the data stream; applying the signature to the masked fields of the data stream; and

outputting a signed data stream having the non-critical fields of the data stream containing the signature and the critical fields of the data stream containing the multimedia data.

11. (currently amended) The method of claim 35 ~~4~~, wherein the data stream includes header information and multimedia content information, and wherein said information concerning the capability of the first device comprises a ~~the~~ watermark that is contained in the multimedia content information.

12-17. (canceled)

18. (currently amended) The method of claim 35 ~~43~~, wherein at the second device, further comprising: ~~the transmission data message is received at a destination device, and further comprising extracting a signature from the watermark, determining a source device attribute from the extracted signature, determining a destination device attribute corresponding to the data source device~~ communication capability attribute contained in said information concerning the communication capabilities of the first device, and comparing the source device communication capability attribute of the first device with the communication capability destination device attribute of the second device.

19. (currently amended) The method of claim 18, wherein at the second device, further comprising determining a communication capability attribute common to both the first device and the second ~~source and destination device units based on said comparing the compared attributes.~~

20. (currently amended) The method of claim 19, wherein at the second device, said determining comprises ~~further comprising~~ generating a parameter for use in communicating between the ~~data source~~ first device and the ~~destination~~ second device based on the determined common communication capability attribute.

21. (currently amended) The method of claim 19, wherein at the second device, further comprising recovering from the received ~~transmission data~~ message a ~~multimedia~~ said data stream, based on the parameter.

22-23. (canceled)

24. (currently amended) The communication system ~~data-source apparatus~~ of claim 36 23, wherein said signature generator in the first device generates said signature information comprising at least one attribute of the data-source apparatus ~~comprises~~ at least one of a type of voice operated recorder (vocoder), ~~source apparatus~~ device revision indicator, and a ~~source-apparatus~~ device identifier.

25. (currently amended) The communication system ~~data-source apparatus~~ of claim 36 23, wherein said first communication device further comprising comprises a compression unit that compresses the data stream according to a source compression algorithm, wherein said signature information also at least one attribute identifies the source compression algorithm.

26. (currently amended) The communication system ~~data-source apparatus~~ of claim 36 22, wherein said further comprising a transport processor unit in the first communication device configured to add adds communication protocol information to the signature information ~~watermarked data and to output a data transmission.~~

27. (currently amended) The communication system ~~data-source apparatus~~ of claim 36 22, wherein the combiner in the first communication device comprises a circuit for logically combining the signature information with the data stream.

28-31. (canceled)

32. (currently amended) The communication system ~~destination apparatus~~ of claim 36 29, wherein ~~the multimedia data contained in the data transmission message is compressed according to a compression algorithm employed in the data-source apparatus, and wherein the data-source apparatus capability information extracted from~~

~~the watermark includes information identifying said compression algorithm, the apparatus further comprising said second communication device comprises~~ a multimedia data decompression unit configured based on said signature information identifying said compression algorithm to decompress the multimedia data.

33. (currently amended) The communication system ~~destination apparatus~~ of claim 36 ~~29~~, wherein the ~~watermark~~ detector in the second communication device comprises an extraction mask unit configured to logically combine the multimedia data containing the signature information ~~watermark~~ with a data extraction mask and a signature extraction mask, and to output a multimedia data frame ~~having the watermark extracted~~ and a signature signal containing the ~~data source apparatus~~ signature information concerning at least one communication capability of the first communication device information.

34. (canceled)

35. (new) A method of automatically negotiating communication parameters to permit communication between a first device and a second device based on the capabilities of those devices, comprising:

at the first device:

generating information concerning the communication capabilities of the first device;

combining said information with a data stream to produce a message; and
transmitting the message to the second device;

at the second device:

receiving the message from the first device;
extracting said information from the message to determine the communication capabilities of the first device;
negotiating with the first communication device parameters for communication between the first communication device and second communication device; and

processing further messages received from the first device based on the parameters negotiated with the first device.

36. (new) A communication system comprising:

a first communication device that comprises:

a data stream processor that outputs a data stream to be transmitted;

a signature generator that generates signature information concerning at least one communication capability attribute of the first communication device;

a combiner that embeds the signature information within the data stream;

and

a transport processor that generates a message containing the data stream with the embedded signature information for transmission;

a second communication device that comprises:

a transport processor unit that receives the message from the first communication device;

a detector that detects the signature information embedded in the data stream; and

a capabilities processor that extracts the signature information to determine the at least one communication capability attribute of the first communication device in order to negotiate through subsequent messages transmitted between the first communication device and second communication device communication parameters to be used for subsequent communication between the first and second communication devices.